



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/484,223 | 01/18/2000 | Toshitaka Agano | q55890 | 9431 |

7590

05/24/2002

Sughrue Mion Zinn Macpeak & Seas PLLC
2100 Pennsylvania Avenue N W
Washington, DC 20037-3202

EXAMINER

AKKAPEDDI, PRASAD R

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 05/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/484,223

Applicant(s)

AGANO ET AL.

Examiner

Prasad R Akkapeddi

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Statements such as (Page 6, lines 22-24 and page 7, lines 1-3), " wherein the thermal ablative layer which contains a light absorptive thermal ablative material; and wherein the thermal ablative material in an area which is illuminated by a nearly collimated light incident from a side of the diffusing layer is removed by thermal energy by means of the nearly collimated light" and statements such as "forming color" and "forming no color" and on page 8, lines 3-5, " It is also preferable that a surface of an opposite side of the diffusing layer in the light transmitting support is treated with light non-reflection processing" etc., throughout the documents are very confusing.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2871

4. Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following statements in the claims are confusing and unclear:

(a) In claims 1, 16, 21 and 24, 'the unrecognizable structure' is not defined properly

(b) In claims 1, 2, 16 and 21, 'a non-passing area with low light transmissivity' is not clear due to the limitation that a non-passing area is inherently opaque and thus cannot have light transmission.

(c) In claim 2, 'a light transmitting support by fixing light transmitting spheres which constitutes said passing areas to the light transmitting support with a light absorptive binder which constitutes said non passing area' is not clear

(d) In claims 3, 5, 6, 17, 19, 20, 'forming no color and heated to form a color' is not clear.

(e) In claims 4, 18, 'wherein said thermal ablative material in an area which is illuminated by a nearly collimated light incident from a side of said diffusing layer is removed by thermal energy by means of the nearly collimated light' is not clear.

(f) In claims 26-31, 'a preventing sheet' as defined on page 38, lines 11-16 of the specification as 'a sheet which absorbs light and prevents the extraneous light from being scattered by decreasing transmissivity' is not clear.

Claims 7-15 and 22-31 are rejected for being dependent on rejected claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

a. Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Watanabe et al (Watanabe) (U.S. Patent No. 6,172,814).

As to claims 1-15: Watanabe discloses a light diffusion plate for diffusing the light from a liquid crystal display type of device (Col 1, lines 12-16) that could be used to diffuse back light or as a front viewing angle-increasing plate. In Fig. 8 and in (Col 7, lines 60-67) discloses a transparent base member having refractive index 11 (Col 4, line 50), a transparent –ball (spheres) layer 12, either in contact or in close contact with one another, a color layer 13 used for light exposure, an anti-reflection layer 28

(preventing sheet) and in (Col 8, lines 7-10) discloses light transmitting (passing) and light absorbing layer 105 (non-passing) in Fig. 40.

Watanabe also discloses that the light-absorbing layer can be formed of a toner like carbon powder that serves as the thermal ablative layer (Col 16, line 43).

As to 16-31: Watanabe disclose that the above plate, with all the features recited earlier and as shown in Figs. 8 and 40, could be used as the front diffusing plate for liquid crystal display device to enhance the viewing angle (Col 1, lines 11-14), thus disclosing a liquid crystal device that incorporates the diffusing plate.

6. As to the product-by-process limitations, recited in the following claims:

- (a) " material of said passing areas and non-passing areas are applied simultaneously" of claim 1,
- (b) " forming a diffusing layer on the said light transmitting support by fixing light transmitting spheres" of claim 2,
- (c) " light absorptive material" of claims 2, 4, 6,20
- (d) " light sensitive material which forms no color and is heated and developed to form color" of claims 3, 5,6,17, 19,20
- (e) " forming a layer of said contacting material" of claims 7-10,

it has been recognized that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of

Art Unit: 2871

production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: (1) Vance (U.S. Patent No. 5,781,344 - Discloses a similar light diffuser. (2) Kaszczuk (U.S. Patent No. 5,429,909 - Discloses a laser ablative layer material and (3) GB002083726A - Discloses a thermal ablative material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on 703-308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-4767 for regular communications and 703-305-4767 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

PRA

May 15, 2002

William L Sikes

William L. Sikes
Supervisory Patent Examiner
Technology Center 2800